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THE INDO-AUSTRALIAN SPECIES OF THE ANT GENUS *STRUMIGENYS* FR. SMITH: THREE NEW PHILIPPINE SPECIES¹

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This paper is a further contribution in a series which, when complete, will cover the Indo-Australian portion of the world fauna of the dacetine ant genus *Strumigenys* Fr. Smith. Previous parts, the first two of which include explanations of the abbreviations used for citing measurements and indices, are in *Psyche* 60: 85-89 (1953), 60: 160-166 (1954) and 61: 68-73 (1954).

The last reference just cited contains the description of *S. chapmani* Brown, from the Philippines, a species that is very difficult to assign to any species group. There are also known from the same islands a member of the *szalayi* group (*australis* or near); an undescribed species, apparently nearest *S. koningsbergeri* Forel; a member of the "Labidogenys" complex, probably new, and four species of the *godeffroyi* group, including *S. godeffroyi* Mayr and the three forms described here for the first time. This makes a total of eight known *Strumigenys*, which is undoubtedly only a fraction of the number actually to be found in the Philippines.

So far as can be determined from the present samples, the Philippine *Strumigenys* fauna is Indo-Malayan in affinities, with also an element (*australis*) of probable Papuasian

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origin. As elsewhere in the East Indies, species endemism is high.

Strumigenys esrossi, new species

Holotype worker: TL 2.4, HL 0.62, ML 0.28, WL 0.60; CI 72, MI 45.

Head and mandibles in general form much like those of *godeffroyi*; the occipital lobes with a feeble indication of dorsal depression and another extremely feeble depression in the center of the cephalic dorsum at eye level. Mandibles only very feebly arcuate; dorsal tooth of apical fork nearly twice as long as the ventral; the latter parallel and with two small acute intercalary denticles on its inner margin. Pre-apical spiniform tooth distant by about $1\frac{1}{2}$ times its own length, situated at approximately the apical third of the length of the shaft, a little more than half as long as the dorsal apical tooth. Alitrunk slender, pronotum depressed, forming a nearly straight gentle slope in profile, continuous with the anterior mesonotum; posterior mesonotum rather strongly and broadly concave, continuous with the very feebly convex propodeal dorsum; metanotal groove absent. Propodeal teeth spiniform, but enveloped in infradental lamella, which is acute at their tips and broad and weakly convex below; spongiform tissue not or extremely slightly developed on the lateral faces of the lamellae. Petiolar node long and low, gently rounded above and with a gentle anterior slope. Spongiform tissue reduced to moderate posterolateral flaps and a strong mid-ventral band. Postpetiole moderate in size, nearly twice as broad as petiolar node, convex, finely and densely striolate-punctulate longitudinally, opaque. Anterolateral spongiform appendages less well developed than in *godeffroyi*. Basigastric costulae a broad band of extremely fine, dense longitudinal striolation extending about half the length of the basal tergite, and behind this extending briefly as indefinite traces, although the surface here is generally smooth and shining. Mandibles fairly smooth, shining. Rest of body densely punctulate and opaque, including sides of alitrunk.

Pilosity consisting, except for a few short clavate hairs

at the gastric apex, entirely of short, appressed, whitish spatulate hairs, only moderately distinct on the head, where they are largest posteriorly; reduced, few and scarcely visible at all on alitrunk; a few, inconspicuous, on the petiolar and postpetiolar nodes. Hairs on scape border slender spatulate, subappressed and directed toward the scape apex. Gastric dorsum with very indistinct, small, fine appressed hairs, (color sordid yellowish ferruginous; dorsum of head feebly darkened in the middle. ,

Holotype [California Academy of Sciences] one of 21 workers taken at San José, Mindoro I., Philippine Islands, from a nest in a small cavity in the soil, 3 inches below the surface (E. S. Ross leg.).

Paratype workers: 20 workers from type nest series; numerous workers from near Dumaguete, Negros Oriental, Philippines (probably chiefly from the Cuernos Mts.) (J. W. Chapman and D. Empeso); one worker from MCZ miscellany. Victoria, Luzon (Pierce leg.); one worker from Jolo I., Philippines, from stomach of *Rana microdisca leyteensis* in MCZ. TL 2.2-2.7, HL 0.58-0.65, ML 0.26-0.30, WL 0.58-0.68; CI 70-74, MI 45-46. The larger workers are often lighter and more yellow in color. Paratypes in CAS, USNM, MCZ.

Female, from type nest series: TL 2.8, HL 0.67, ML 0.29, WL 0.69; CI 75, MI 43. Mesonotum with a feeble median sulcus; pilosity as on head, except for a pair of short, tapered, erect hairs on anterior scutum. Nodes broader than in worker; petiolar node about as broad as long. Gaster more opaque, the striolae stronger and extending nearly the whole length of the basal tergite; coarser at extreme base. Anterior gastric dorsum with a widely spaced pair of very small erect clavate hairs. Medium ferruginous; ocelli small, with blackened callus at each. Male unknown.

This species is so far known only from the Philippines, where it is widespread and apparently rather common. It combines features of the *godeffroyi* and *szalayi* groups, but seems best placed with the former group. It is strongly distinct in sculpture and pilosity. From *S. phytibia* sp. nov., another Philippine species with striate pospetiole, *S. esrossi* differs in the more proximally placed preapical tooth,

the slightly more arcuate mandibles, different pilosity, and other details.

Strumigenys uichancoi, new species

Holotype worker: TL 2.2, HL 0.55, ML 0.26, WL 0.53; CI 72, MI 47. Shape of head, mandibles and antennae very much as in *S. frivaldszki* as figured by Emery in his original characterization of that species. The mandibles are slender, and the preapical tooth is straighter, and is placed slightly farther from the apical teeth, at or a little basad of the apical quarter of the ML. Promesonotum weakly convex, posterior mesonotum very weakly depressed (less so than in *godefroyi*) and in profile forming an uninterrupted straight or extremely feebly convex dorsal outline with the propodeum. Metanotal groove completely obsolete on the dorsum. Propodeal lamellae moderate in size, with short upper teeth, each embedded in fairly thick lamelliform angles, so that the upper corners of the lamellae are obtuse; below this, the lamellae gradually widen ventrad (to nearly twice the dorsal width at the position of the teeth) and are here convex. The lamellae are smaller and narrower above, and without definite development of spongiform tissue on their lateral faces, but otherwise similar to those of *godefroyi*. Petiolar node a little longer than broad, subglobose, with moderately steeply sloping anterior face; broadly rounded above as seen from the side. Lateral spongiform lobes much narrower and less well developed than in *godefroyi*, anterior nodal face not nearly so steep. Postpetiolar disc small, convex, smooth and shining.

Sculpture of alitrunk weak, entirely effaced on the sides, which are consequently smooth and shining, and almost gone on much of the pronotum, which is moderately to fairly strongly shining. Petiole opaque. Basal gastric costulae few (11-12), extending 1/5 or less the length of gastric tergite I, well separated and irregular in length. Rest of gaster smooth and shining.

Pilosity consisting of short, very fine hairs, feebly subspatulate and appressed or subappressed on the anterior part of the cephalic dorsum and the anterior scape borders, erect and quite abundant on the posterior half of the head,

finer, erect and sparse on the alitrunk, nodes and gaster. A few hairs are slightly longer: on humeral angles, mesonotum, and gastric dorsum, appearing flagellate, but the tips looped back on the shafts to suggest a false spatulate condition in the present specimen.

Holotype a unique [USNM] taken in U. S. Plant Quarantine (No 686, 10385) at Honolulu from a fern plant originating in the Philippine Islands. Closely related to *godeffroyi*, but differing in smaller size, pilosity and placement of the preapical tooth, among other characters.

✓ *Strumigenys phytibia*, new species

Holotype worker: TL 2.5, HL 0.60, ML 0.29, WL 0.65; CI 69, MI 48. Closely resembles *godeffroyi*, with straight mandibles and slightly recurved preapical tooth set less than its own length away from the dorsal apical tooth. Clypeus with anterior border only extremely feebly concave, almost straight. Posterior mesonotum gently concave. Propodeal teeth acute and elevated, but each is encumbered in a thin, areolate infradental lamella which becomes broadly convex below, the lamellae with a few barely perceptible strands of spongiform tissue on their lateral faces. Petiolar node subcircular seen from above, broadly rounded above and with steeply sloping anterior face as seen from the side. Postpetiolar disc convex, broader than long, its surface completely, distinctly and regularly longitudinally costulate and opaque.

Gaster with rather coarse basal costulae interspersed with fine parallel striation extending to about the mid-length of the first segment; remainder of gastric surface smooth and shining. Pronotum very indistinctly substriate over punctulation in a longitudinal direction, definitely opaque. Head, alitrunk, legs and petiole densely punctulate, opaque; fore coxae and a ventral strip along mesopleura smooth and shining.

Pilosity of alitrunk similar in plan to that of *godeffroyi*, but much reduced, the hairs smaller, fewer and more nearly appressed. Humeral and mesonotal paired flagellate hairs extremely fine, as are also the lateral and posterior occipi-

tals. Ground pilosity of head abundant, extremely fine and inconspicuous, appressed or nearly so and directed anteriorly and medially. A half dozen or fewer weak erect flagellate hairs on the gastric dorsum. Spongiform appendages covering less than half the sides of the nodes, generally less well developed than in *godeffroyi*.

Holotype taken in U. S. Plant Quarantine at Honolulu (No. 8807) from plants of *Grammatophyllum multiflorum* originating in the Philippine Islands; deposited in USNM.

Paratypes: Three workers with the same data as for holotype do not vary in measurements by much more than the usual maximum error. CI 67-68, MI 48-49. [USNM, MCZ.]

Alate female paratype, same data as for holotype: TL 2.7, HL 0.62, ML 0.28, WL 0.72; CI 74, MI 45. Like worker, with usual caste differences. Mesonotum evenly and densely punctulate, no costulae or median sulcus; mesepisterna and fore coxae shining. Petiolar node broader than long. Forewing with only R+Sc, stigma and 2r well defined; basalis oblique, indistinct; M+CuA and CuA indistinct, some other veins indicated by weak creases. Forewing L ca. 2.0 mm.